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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/341,637	09/03/99		K APV30918

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IM22/1211

EXAMINER

ART UNIT

PAPER NUMBER

1733

DATE MAILED:

12/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/341,637

Applicant(s)

Beentjes

Examiner

Todd J. Kilkenny

Art Unit

1733

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Specification fails to state brief descriptions of all Figures. See 37 C.F.R 1.74. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "preferably" in claim 1 part (ii) is vague and renders the claim indefinite. Correction can be made by positively reciting cooling roll to be internally water-cooled.

5. The term "close" in claim 1 part (iv) is a relative term which renders the claim indefinite. The term "close" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The phrase "close to" renders the temperature needed by the substrate indefinite in regard to the softening temperature of the plastic strip.

6. The term "high" in claim 1 part (vi) is a relative term which renders the claim indefinite. The term "high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art

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would not be reasonably apprised of the scope of the invention. The term "high" renders the speed of the process indefinite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Aoki et al and Ichikawa et al.

Strip coating a metallic strip by a film laminating processes or extrusion coating processes is well known as admitted by applicant (See Specification, p 1, line 4 – p 2, line 15). Applicant's contribution is understood to be defined by forming plastic strip in a continuous manner, whereby the strip is led away from extrusion process by an "open contact roll" to a haul off roll or the like as to not initiate contact with substrate until strip casting process is monitored and plastic strip is formed with the desired characteristics (e.g. color, thickness, tension). Bonding is then initiated by closing the contact roll, thereby breaking strip from haul off roll and pressing onto substrate.

Aoki et al. teach a method for continuously supplying plastic film strips from an extruder head. Aoki et al fully address the need to avoid feeding extruded plastic to further processing (e.g. a bag making machine, printing machine, packaging machine,

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or the like) until the strip is formed with predetermined regular or uniform thickness and breadth (Column 1, lines 53-57). The teaching acknowledges that the initial stage of operation in the extrusion process will produce a plastic strip with irregular thickness and breadth (Column 1, lines 39-44) not suitable for further processing. To monitor the thickness and breadth of extruded strip, Aoki et al teaches detecting means (Column 4, lines 39-41). Furthermore, Aoki et al teach of movable rollers that form conveyors for guiding plastic strips. Said conveyors are moved to switch the plastic strip from a haul-off roll to the continued operation when the desired properties of the strip have been achieved and maintained from extrusion process. Switching said strip is done in a manner that strip is broken from haul off roll and then guided to further processing.

Ichikawa et al. teach a method for producing a composite laminate wherein a thermoplastic synthetic resin sheet is extruded in a molten state and formed into a sheet with a three-roll casting unit. The thermoplastic sheet is then guided to a hot press bonding roller where it is adhered to an aluminum sheet. Ichikawa et al. teach means of conveying metal substrate, a contact roll, means of casting plastic, a cooling roll for formation of plastic sheet, and means of feeding and guiding the plastic to the substrate via the contact roll as is shown in Figure 1. Ichikawa et al. acknowledge, in an attempt to better control the process (including start-up), the thermoplastic sheet may be wound up on a haul off roll prior to bonding so as to separate the extrusion process from the bonding process (Column 3, lines 48-55).

It would have been obvious to provide means in the admitted prior art to allow the sheet forming process to come to steady state before commencing lamination since

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both Aoki et al. and Ichikawa et al. suggest it is advantageous to do so. It would have been obvious and within the mechanical skill of one in the art at the time of the invention to provide for opening and closing the press laminating rolls of the admitted prior art to feed to a haul off roll as in Aoki et al. It being noted it is well known to provide for opening and closing of press rolls to facilitate startup.

9. Claims 2, 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Ichikawa et al. and Aoki et al. as applied to claims 1 and 3 above, and further in view of Smith et al. The teachings of Smith et al. define a method for coating a metal strip through an extrusion process wherein after the metal strip has been coated with plastic, extra heat treatment is applied downstream (Figure 1, element 42 and Column 3, lines 27-33), as claimed in claim 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the extra heat treatment of Smith et al. to the admitted prior art in view of Ichikawa et al. and Aoki et al. to further consummate bonding of the plastic to the metal strip.

In regard to claim 4, Smith et al. teach contact rolls having resilient surfaces, such as elastomers (Column 3, lines 18-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to use rubber coated press rolls as in Smith et al. to ensure temperature resilient surfaces on the press rolls to minimize unwanted heat transfer affects from contact with the heated metal strip.

In regard to claims 5 and 6, Smith et al. teach of duplicating the strip coating operation for simultaneously two-sided coating of the metal substrate (Figures 1 and 2).

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It would have been obvious to one of ordinary skill in the art at the time of the invention

to simultaneously coat both sides of a metal strip by duplicating the process as done by


Smith et al. to maximize efficiency in a two-sided coating process.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd J. Kilkenny whose telephone number is (703) 305-6386. The examiner can normally be reached on Mon - Fri (9 - 5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Todd J. Kilkenny
December 7, 2000


Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700